

AERO Design Ltd.
2013 - 39th Ave. NE
Calgary, AB, T2E 6R7

AUTHORIZED RELEASE CERTIFICATE

TRANSPORT CANADA
TCCA 24-0078
AMF # 73-04

Product: Bear Paw Set (4 Paws, Straps, Hardware) Part #: 64001-01
Approval #: SH05-17 Serial #: N/A
WO #: 2005-09 Quantity: 1
Eligibility: Robinson R44 Work Status: Manufactured
Remarks: _____

I hereby certify that the product identified above has been manufactured in accordance with the applicable design data and the Canadian Aviation Regulations or applicable foreign regulations.

April 17/06
Date

Jeff Clarke
Inspector's Signature

AERO Design Ltd.
2013 - 39th Ave. NE
Calgary, AB, T2E 6R7

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TCCA 24-0078
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April 17/06
Date

Jeff Clarke
Inspector's Signature

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AUTHORIZED RELEASE CERTIFICATE

TRANSPORT CANADA
TCCA 24-0078
AMF # 73-04

Product: BEAR PAW SET (4 PAWS) Part #: 64010-01

Approval #: SH05-17 Serial #: N/A

WO #: 2005-09 Quantity: 4

Eligibility: ROBINSON R44 Work Status: Manufactured

Remarks: _____

I hereby certify that the product identified above has been manufactured in accordance with the applicable design data and the Canadian Aviation Regulations or applicable foreign regulations.

June 9 / 05
Date

Jeff Clarke
Inspector's Signature

AERO Design Ltd.
2013 - 39th Ave. NE
Calgary, AB, T2E 6R7

AUTHORIZED RELEASE CERTIFICATE

TRANSPORT CANADA
TCCA 24-0078
AMF # 73-04

Product: BEAR PAW SET (4 PAWS) Part #: 64010-01

Approval #: SH05-17 Serial #: N/A

WO #: 2005-09 Quantity: 4

Eligibility: ROBINSON R44 Work Status: Manufactured

Remarks: _____

I hereby certify that the product identified above has been manufactured in accordance with the applicable design data and the Canadian Aviation Regulations or applicable foreign regulations.

June 1 / 05
Date

Jeff Clarke
Inspector's Signature

WORK ORDER

Order Date: 01/06/05
D / M / Y

W.O. Number # 2005-09
Current yyyy - 000

Customer Purchase Order: _____

Expected Completion Date: _____

NOTE: A new file must be opened for each work order and a unique sequential number assigned.

This Work Order is part of a set of Incorporated Documents referenced in the Quality Program Manual of AERO Design Ltd. as Process Control Forms. It has been developed in compliance with the quality records requirements of an *Approved Manufacturing Facility* of aeronautical parts and products under CARS PART V Chapter 61, and AWM Advisories 561/1, 2, 3A & 4 effective January 1, 1986.



President, AERO Design Ltd.

A. PREPARATION

1. Type Approval Authority

All work detailed in this Work Order is to be completed in accordance with:

Supplemental Type Certificate: SH05-17 Issue: 1

2. Scope of Work

a) Complete Product



Fabrication of

10

Qty

64010-01 Bear Paw Assembly ¹⁰ ~~10~~ left, ¹⁰ ~~10~~ right)

Item

5 sets



Traceability: Serial Numbers: From # N/A To # N/A
xxx-xxx xxx-xxx



Document Serial Numbers in this Work Order *Section D - Final Inspection & Sign-Off of Aeronautical Products*



Record Serial Numbers in *Serial Number Control List* [Form 010].

OR

b) Component Parts



Fabrication of component parts of _____
as detailed in this Work Order *Section B - Parts List*.



Traceability: finished parts will be indelibly marked with this Work Order Number.

Notes: _____

Order Date: 01/06/05
D / M / Y

W.O. Number # 2005-09
Current yyyy - 000

3. Work Order Package Preparation

☒ Document Control List for SH05-17 issue 1; DCL 640 Rev.0

☐ Full set of new drawings for complete fabrication.

OR

☐ Partial set of new drawings for parts fabrication:

Drawing List: _____

Notes: _____

Order Date: 01/06/05
D / M / Y

W.O. Number # 2005-09
Current yyyy - 000

B. PARTS LIST

- ☒ **Complete fabrication:** This list may *not* be used as Final Inspection Record.
- ☐ **Partial fabrication:** This list may be used as Final Inspection Record.

Qty	Part No.	Description	Materials	Tracking Number PO# for raw stock WO# for finished component parts	Final Inspection
					(Parts mfg only) Accept (A) Non-Conforming (NC)
10	64020-02	LH PAW	6061-T6 1/8" Sheet	5030	
10	64020-02	RH PAW	"	5030	
	64021-01	STRAP	6061-T6 1/4 x 3/4 BAR	5010	
	64021-02	FWD SPACER	6061-T6 1.0 DIA BAR	941020	
	64021-03	AFT SPACER	"	941020	

Notes: _____


Order Date: 01/06/05
D / M / Y

W.O. Number # 2005-09
Current yyyy - 000

C. INSPECTION & SIGN-OFF OF COMPONENT PARTS & ASSEMBLIES

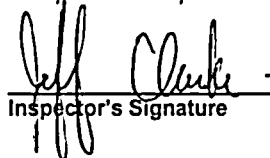
1. Inspection of Welded Assemblies

I hereby certify that I have inspected the welding of the aeronautical parts and assemblies specified in this Work Order and have found it to be complete and conforming to the requirements specified in the Work Scope, except where specifically identified and noted as non-conforming.

June 9/2005  _____
Date Welder's Signature License #

2. Inspection of Component Parts

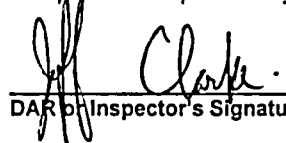
I hereby certify that I have inspected the aeronautical component parts manufactured under this Work Order and have found them to be in conformity to the Approved Design Data specified within the Work Scope, except where specifically identified and noted as non-conforming.

June 9/2005  _____
Date Inspector's Signature

D. FINAL INSPECTION & SIGN-OFF OF AERONAUTICAL PRODUCTS

ITEM	SERIAL NUMBER	ACCEPT YES/NO	NON-CONFORMANCES Non-Conformance Report #'s	ADDITIONAL REMARKS
1	OUTBOARD PAWS	YES	2005-09 NC	

I hereby certify that I have inspected the aeronautical component parts manufactured under this Work Order and have found them to be in conformity to the Approved Design Data specified within the Work Scope, except where specifically identified and noted as non-conforming.

June 9/2005  _____
Date DAR or Inspector's Signature

NON-CONFORMANCE REPORT

Order Date: 01/06/05
D / M / Y

W.O. Number # 2005-08/NC
Current yyyy - 000/NC

INSTRUCTIONS

1. Only a Design Approval Representative (DAR) is authorized to make a determination as to the regulatory impact of each non-conformance. A DAR must sign-off each non-conformance identified below before any further action can be taken.
2. A separate form must be completed for EACH serialized finished product with an identified non-conformance.
3. Batched parts sharing the same non-conformance can be grouped on one form.
4. Print additional copies of this page as necessary to document all non-conformances and follow-up. ATTACH ALL NON-CONFORMANCE FORMS TO THE ORIGINAL WORK ORDER.

DETERMINATION & ACTION

1. Product Name: Bear Paws
2. Product Serial Number: _____ OR
3. Batched Parts Item Number on WO: 64010-01 / -02
4. Description of Non-Conformance (Attach additional page, photos, sketches if desired):
"OUTBOARD" PAW (PAW WITHOUT SLOT) NOT USED -

5. DAR Determination
☐ Scrap
☒ Acceptable for release for the following reason(s):
STRENGTH OF BEAR PAW NOT AFFECTED BY SLOT.
☐ Re-Work instructions: AS INBOARD PAW USED IN ANALYSIS

Date

DAR Signature

RE-WORK INSPECTION & CERTIFICATION

I hereby certify that I have performed inspections on each of the above-named aeronautical product/part(s) and have found them to be in conformity to the Approved Design Data specified within the Scope of this Work Order, except where non-conformances have been specifically noted.

Date

DAR Signature

AERO Design Ltd.
2013 - 39th Ave. NE
Calgary, AB, T2E 6R7

AUTHORIZED RELEASE CERTIFICATE

TRANSPORT CANADA
TCCA 24-0078
AMF # 73-04

Product: BEAR PAW SET (4 PAWS) Part #: 64010-01
Approval #: SH05-17 Serial #: N/A
WO #: 2005-05 Quantity: 4
Eligibility: ROBINSON R44 Work Status: Manufactured
Remarks: _____

I hereby certify that the product identified above has been manufactured in accordance with the applicable design data and the Canadian Aviation Regulations or applicable foreign regulations.

April 1/05
Date

Jeff Clarke
Inspector's Signature

WORK ORDER

Order Date: 01/04/05
D / M / Y

W.O. Number # 2005-05
Current yyyy - 000

Customer Purchase Order: _____

Expected Completion Date: _____

NOTE: A new file must be opened for each work order and a unique sequential number assigned.

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President, AERO Design Ltd.

A. PREPARATION

1. Type Approval Authority

All work detailed in this Work Order is to be completed in accordance with:

Supplemental Type Certificate: SH05-17 Issue: 1

2. Scope of Work

a) Complete Product

☒ Fabrication of 4, 64010-01 Bear Paw Assemblies (2 left, 2 right) 1 set
Qty Item

N/A ☐ Traceability: Serial Numbers: From # N/A To # N/A
xxx-xxx xxx-xxx

☐ Document Serial Numbers in this Work Order Section D - Final Inspection & Sign-Off of Aeronautical Products

☐ Record Serial Numbers in Serial Number Control List [Form 010].

OR

b) Component Parts

☐ Fabrication of component parts of _____
as detailed in this Work Order Section B - Parts List.

☐ Traceability: finished parts will be indelibly marked with this Work Order Number.

Notes: _____

Order Date: 01/04/05
D / M / Y

W.O. Number # 2005-05
Current yyyy - 000

3. Work Order Package Preparation

☒ Document Control List for SH05-17 issue 1; DCL 640 Rev.0

☐ Full set of new drawings for complete fabrication.

OR

☐ Partial set of new drawings for parts fabrication:

Drawing List: _____

Notes: _____

W.O. Number # 2005-05
Current yyyy – 000

B. PARTS LIST

- ☒ **Complete fabrication:** This list may *not* be used as Final Inspection Record.
- ☐ **Partial fabrication:** This list may be used as Final Inspection Record.

[illegible]

Notes: _____

Order Date: 01/04/05
D / M / Y

W.O. Number # 2005-05
Current yyyy - 000

C. INSPECTION & SIGN-OFF OF COMPONENT PARTS & ASSEMBLIES

1. Inspection of Welded Assemblies

I hereby certify that I have inspected the welding of the aeronautical parts and assemblies specified in this Work Order and have found it to be complete and conforming to the requirements specified in the Work Scope, except where specifically identified and noted as non-conforming.

April 1/2005
Date

[Signature]
Welder's Signature

License #

2. Inspection of Component Parts

I hereby certify that I have inspected the aeronautical component parts manufactured under this Work Order and have found them to be in conformity to the Approved Design Data specified within the Work Scope, except where specifically identified and noted as non-conforming.

April 1/2005
Date

[Signature]
Inspector's Signature

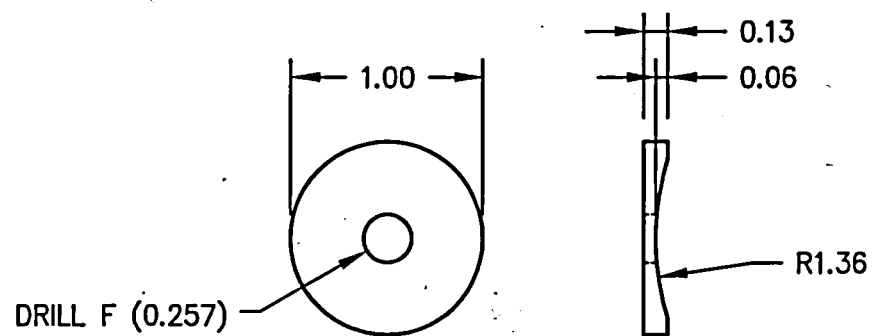
D. FINAL INSPECTION & SIGN-OFF OF AERONAUTICAL PRODUCTS

ITEM	SERIAL NUMBER	ACCEPT YES/NO	NON-CONFORMANCES Non-Conformance Report #'s	ADDITIONAL REMARKS
1	—	YES	—	2 sets

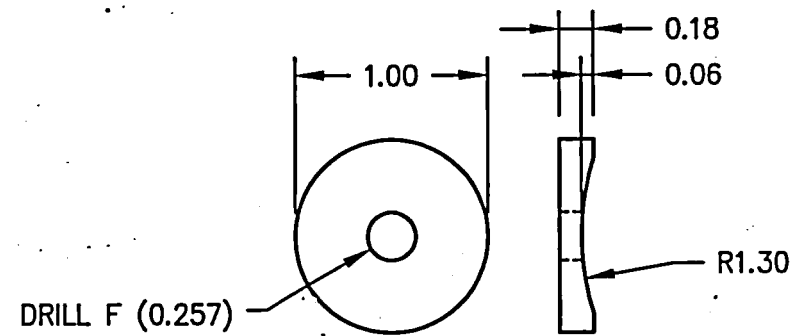
I hereby certify that I have inspected the aeronautical component parts manufactured under this Work Order and have found them to be in conformity to the Approved Design Data specified within the Work Scope, except where specifically identified and noted as non-conforming.

April 1/2005
Date

[Signature]
DAR or Inspector's Signature



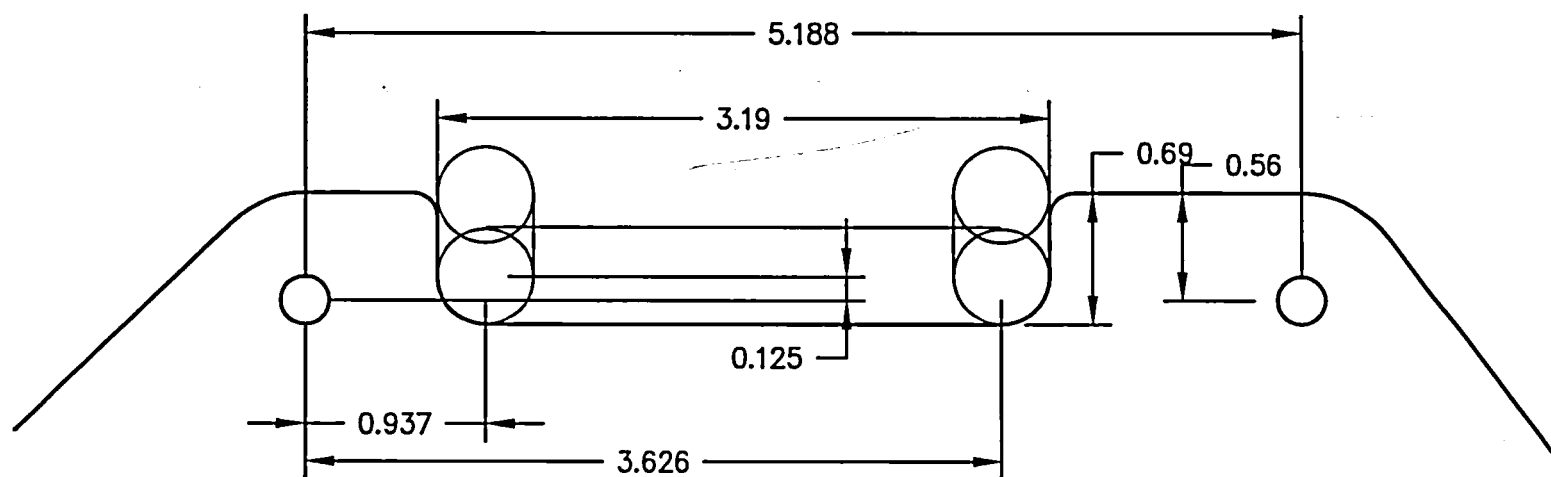
(02) FWD SPACER

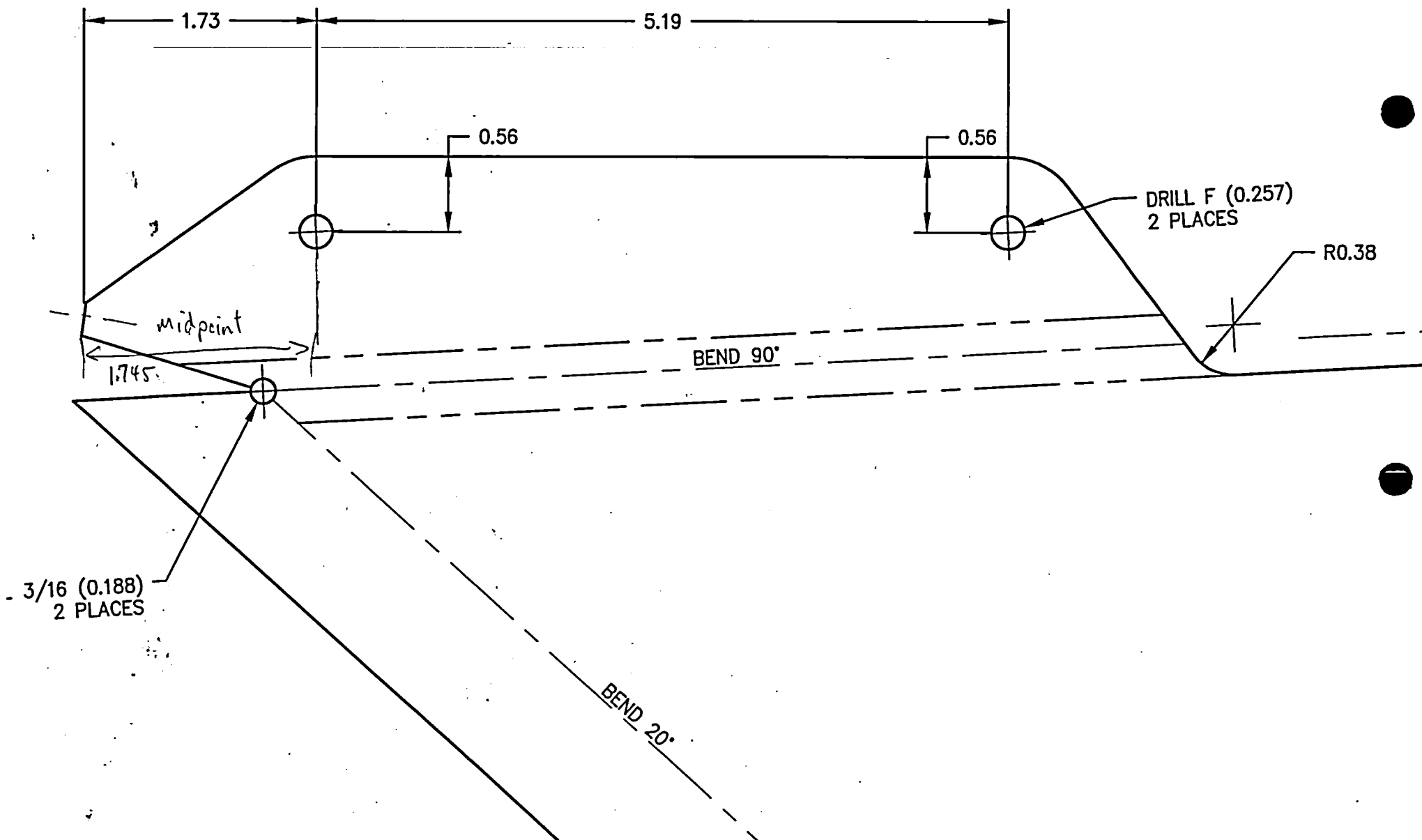


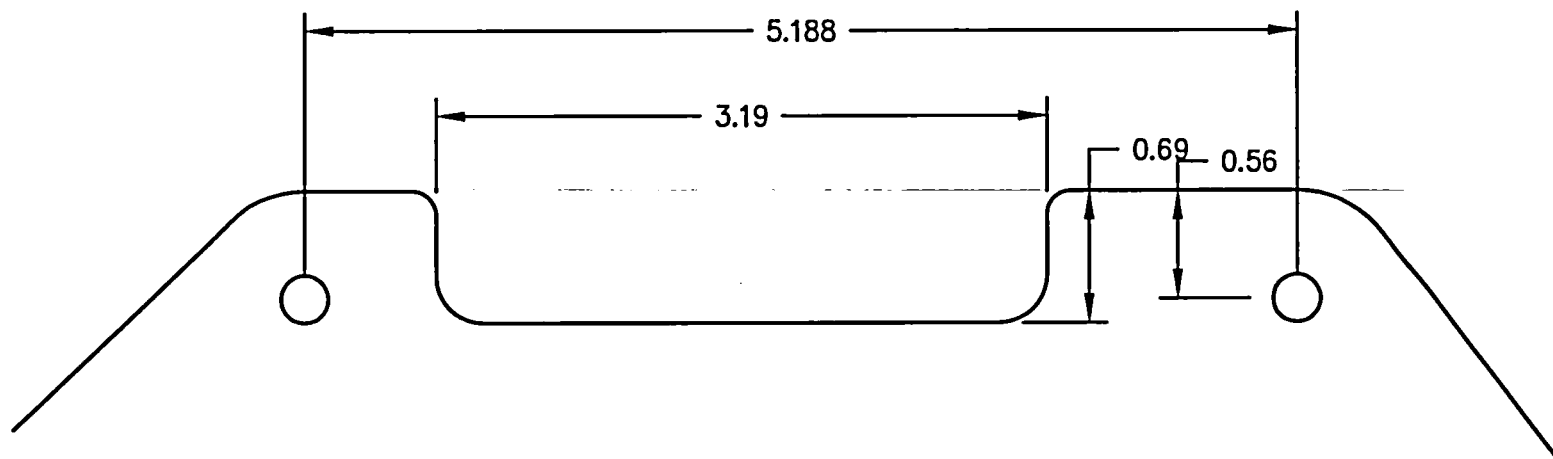
(03) AFT SPACER

Technical drawing of a mechanical part, likely a bracket or support, showing dimensions in inches. The drawing includes a central horizontal section with two circular features (possibly holes or mounting points) and a central rectangular section. The dimensions are as follows:

- Overall width: 3.616
- Distance from left edge to center of left circular feature: 0.947
- Distance between centers of the two circular features: 3.19
- Distance from center of right circular feature to right edge: 0.947
- Distance from center of right circular feature to right edge of the central rectangular section: 0.135

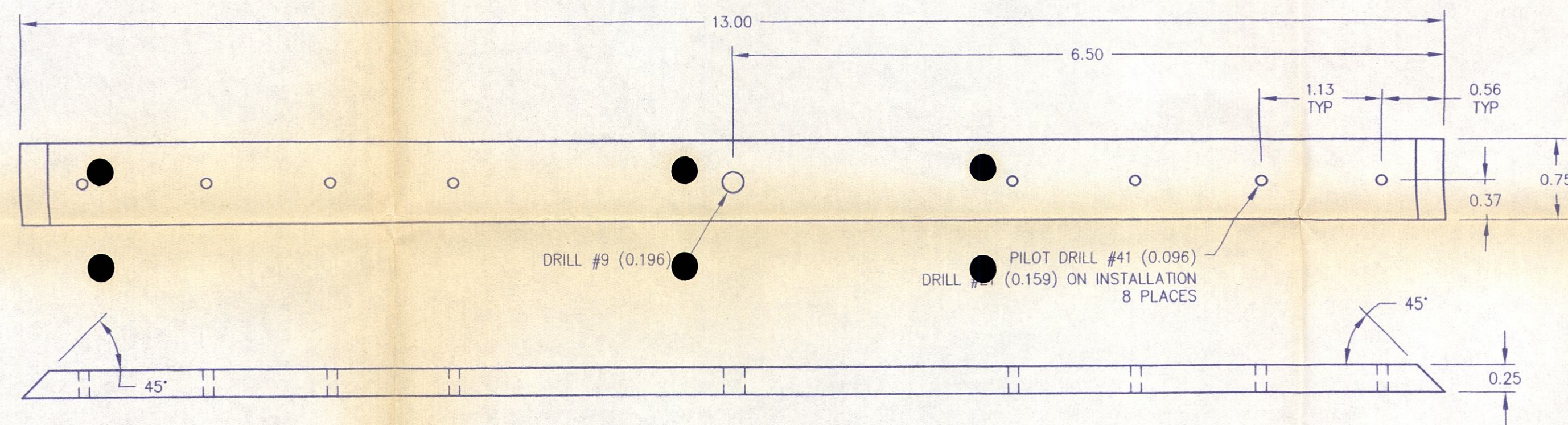






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REV.	DESCRIPTION OF CHANGE	INITIALS	DATE
0	INITIAL ISSUE		



01 STRAP



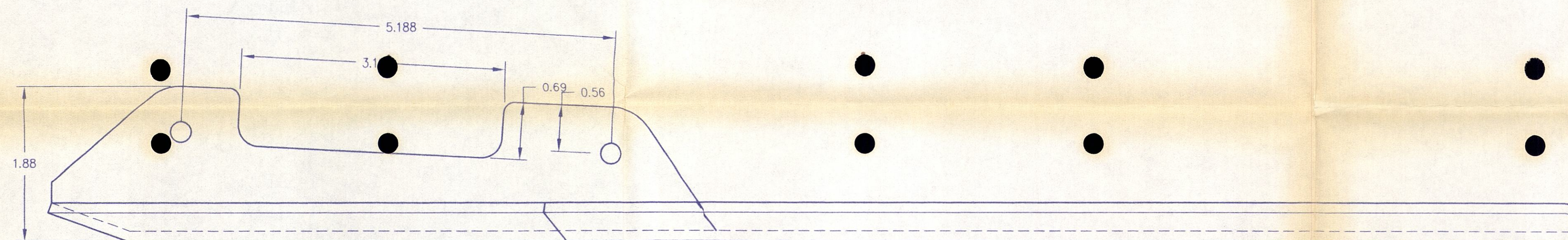
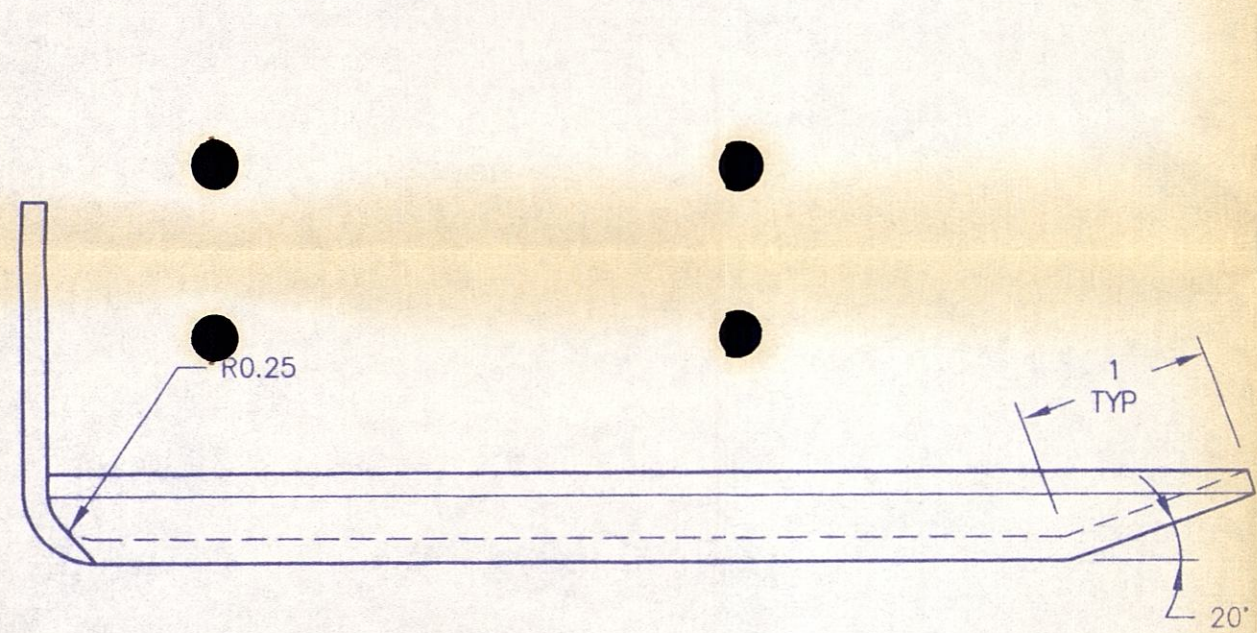
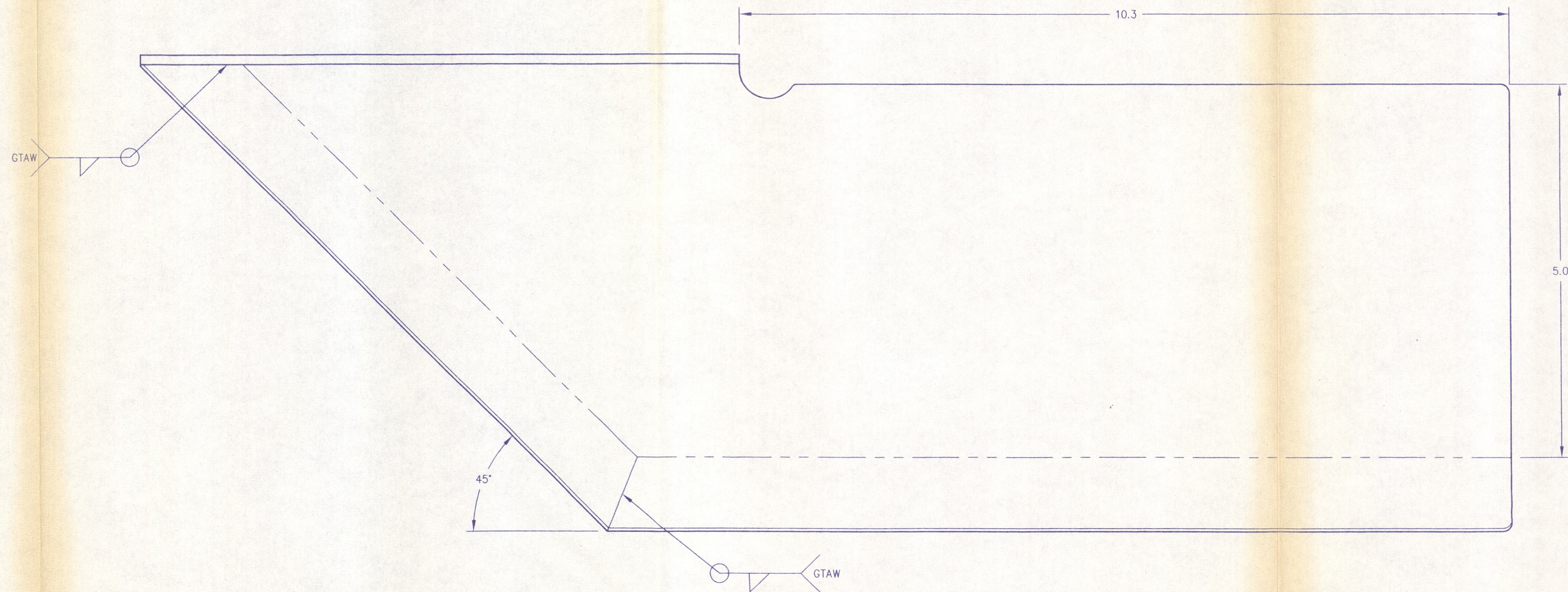
02 FWD SPACER

03 AFT SPACER

64021-03	03	AFT SPACER	6061-T6 ALUMINUM	QQ-A-200/8	1.0 DIA RND. BAR
64021-02	02	FWD SPACER	6061-T6 ALUMINUM	QQ-A-200/8	1.0 DIA RND. BAR
64021-01	01	STRAP	6061-T6 ALUMINUM	QQ-A-200/8	0.25 X 0.75 BAR
PART NO.	ITEM	DESCRIPTION	MATERIAL	MATERIAL SPEC	STOCK SIZE

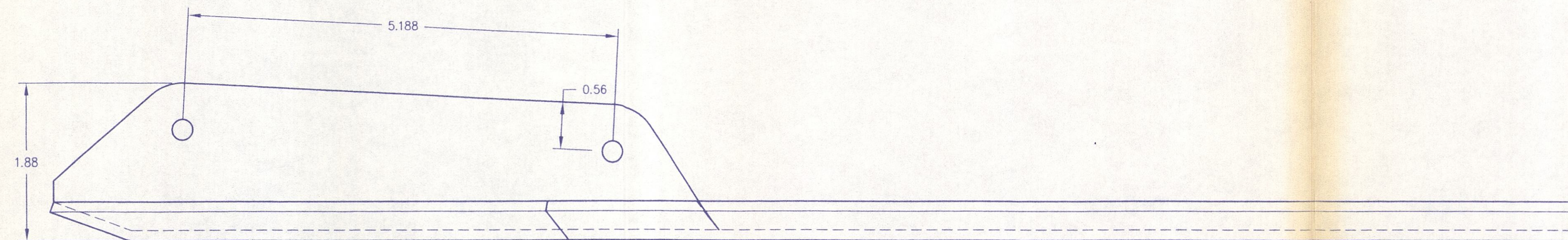
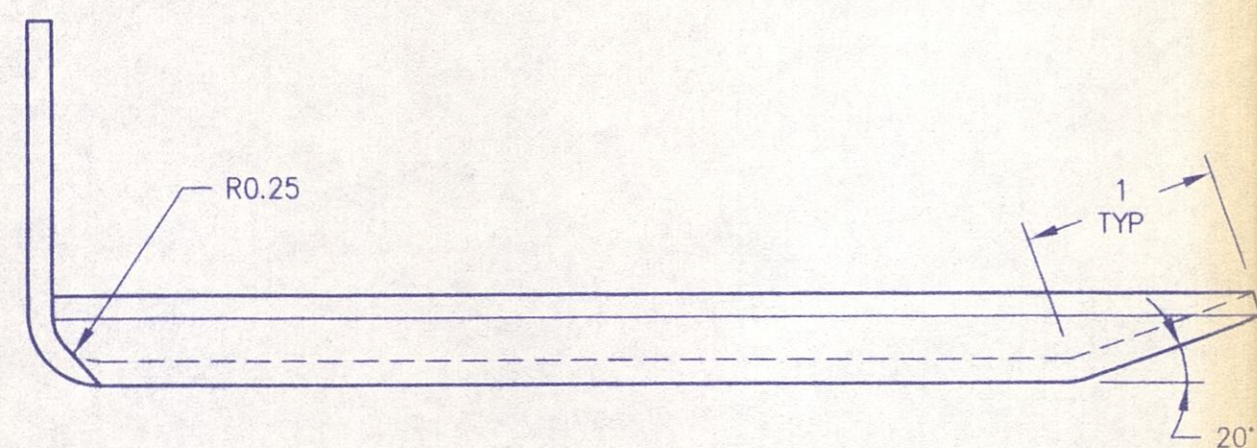
QTY		LIST OF MATERIALS					
		APPROVALS		DATE			
		DRAWN: JEFF CLARKE		14 FEB 2005			
		CHECKED: E. BURGOIN					
		UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES. TOLERANCES ON: DECIMALS ANGLES X.XXX ±0.010 ±1/2° X.XX ±0.03 X.X ±0.1					
		AERO DESIGN LTD. CONSULTING ENGINEERS, TRANSPORT CANADA APPROVALS, DAR 290M 2013 - 39TH AVENUE N.E., CALGARY, ALBERTA, CANADA, T2E 6R7 tel: (403) 250-8027 fax: (403) 250-8333 aerodesign@telusplanet.net					
		ROBINSON R44 BEAR PAWS INSTALLATION PARTS FABRICATION					
		SCALE 1 : 1		DWG. SIZE	DWG. NO.	REV.	
		SHEET 1 OF 1		A1	64021	0	

THIS DRAWING CONTAINS INFORMATION AND DATA WHICH IS PROPRIETARY TO AERO DESIGN LTD. THIS DRAWING, OR ANY PORTION THEREOF, MAY NOT BE REPRODUCED, COPIED, OR DUPLICATED IN ANY MANNER, NOR USED FOR MANUFACTURING WITHOUT THE WRITTEN CONSENT OF AERO DESIGN LTD. BY ACCEPTING THIS DRAWING FOR REFERENCE, THE RECIPIENT AGREES TO HOLD AERO DESIGN LTD. HARMLESS FROM THE USE, OR MISUSE, OF THIS DRAWING OR THE INFORMATION CONTAINED THEREON.			
REV.	DESCRIPTION OF CHANGE	INITIALS	DATE
0	INITIAL ISSUE		



02 INBOARD PAW

RIGHT SIDE BEND FLANGES UP, LEFT SIDE BEND FLANGES DOWN
RIGHT SIDE INBOARD PAW SHOWN
USE FLAT PATTERN ON SHEET 2



01 OUTBOARD PAW

LEFT SIDE BEND FLANGES UP, RIGHT SIDE BEND FLANGES DOWN
LEFT SIDE OUTBOARD PAW SHOWN
USE FLAT PATTERN ON SHEET 2

- NOTES:
- REMOVE ALL BURRS AND SHARP EDGES.
 - WELDING OF 6061 ALUMINUM TO BE COMPLETED BY GTAW METHOD TO AMS 2685C. WELDING ROD SHALL CONFORM TO ANSI/AWS ER4043.

	64020-02	02	INBOARD PAW	6061-T6 ALUMINUM	QQ-A-250/11	0.125" SHEET
	64020-01	01	OUTBOARD PAW	6061-T6 ALUMINUM	QQ-A-250/11	0.125" SHEET
	PART NO.	ITEM	DESCRIPTION	MATERIAL	MATERIAL SPEC	STOCK SIZE
QTY	LIST OF MATERIALS					
	APPROVALS		DATE	AERO DESIGN LTD. CONSULTING ENGINEERS, TRANSPORT CANADA APPROVALS, DAR 290M 2013 - 39TH AVENUE N.E., CALGARY, ALBERTA, CANADA, T2E 6R7 tel: (403) 250-8027 fax: (403) 250-8333 aerodesign@telusplanet.net		
	DRAWN:	JEFF CLARKE	14 FEB 2005			
	CHECKED:	E. BURGAIN		ROBINSON R44 BEAR PAWS INSTALLATION PAW FABRICATION		
	UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES. TOLERANCES ON:					
	DECIMALS ANGLES X.XXX ±0.010 ±1/2" X.XX ±0.03 X.X ±0.1					
SCALE 1 : 1			DWG. SIZE	DWG. NO.	REV.	
SHEET 1 OF 2			A1	64020	0	

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REV.	DESCRIPTION OF CHANGE	INITIALS	DATE
0	INITIAL ISSUE		

DRILL #21 (0.159)
4 PLACES PER PAW
PICK UP ON PILOT HOLES IN STRAP

04 LEFT
03 RIGHT

05

03 LEFT
04 RIGHT

- NOTES:
1. REMOVE ALL BURRS AND SHARP EDGES.
 2. ALL ALUMINUM PARTS TO BE THOROUGHLY DEGREASED, ALODINED, PRIMED AND PAINTED FLAT BLACK.

1	1	64021-01	05	STRAP	6061-T6 ALUMINUM	QQ-A-200/8	0.75 X 0.25 BAR
1	1	64020-02	04	INBOARD PAW	6061-T6 ALUMINUM	QQ-A-250/11	0.125" SHEET
1	1	64020-01	03	OUTBOARD PAW	6061-T6 ALUMINUM	QQ-A-250/11	0.125" SHEET
		64010-02	02	RIGHT PAW ASSEMBLY			
		64010-01	01	LEFT PAW ASSEMBLY			
02	01	PART NO.	ITEM	DESCRIPTION	MATERIAL	MATERIAL SPEC	STOCK SIZE
QTY	QTY						

LIST OF MATERIALS

AERO DESIGN LTD.
CONSULTING ENGINEERS, TRANSPORT CANADA APPROVALS, DAR 290M
2013 - 39TH AVENUE N.E., CALGARY, ALBERTA, CANADA, T2E 6R7
tel: (403) 250-8027 fax: (403) 250-8333 aerodesign@telusplanet.net

ROBINSON R44
BEAR PAWS INSTALLATION
PAW ASSEMBLY

SCALE 1 : 1	DWG. SIZE	DWG. NO.	REV.
SHEET 1 OF 1	A1	64010	0

BASIC CODE REF. NAS 523

G=COUNTERSUNK
D=DIMPLE
DIGIT=# OF SHEETS TO BE DIMPLED

BASIC CODES:
BJ=MS20470AD
BB=MS20426AD
ARN=CR3213
ARM=CR3212

DASH NO. FOR DIAMETER
N=MFD. HEAD NEAR SIDE
F=MFD. HEAD FAR SIDE

DASH NO. FOR LENGTH

INSTALL NEW RIVET
REMOVE/REPLACE RIVET
EXISTING RIVET

UNLESS OTHERWISE SPECIFIED
DIMENSIONS ARE IN INCHES.
TOLERANCES ON:
DECIMALS ANGLES
X.XXX ±0.010 ±1/2°
X.XX ±0.03
X.X ±0.1

01 LEFT PAW ASSEMBLY
02 RIGHT PAW ASSEMBLY
01 SHOWN, 02 OPPOSITE

FLANGE REMOVED FOR CLARITY